CLAIMS

What is claimed is:

1. Rotating device for a centrifugal partition chromatograph, comprising at least one cylindrical body that can be driven in rotation around its axis, the said cylindrical body comprising several cells with a height less than a determined height, with an elongated shape arranged along a direction with a radial component with regard to the rotation axis of the said body and being connected to each other in series through ducts internal to the body and external ducts, characterised in that the thick-walled single piece cylindrical body has a height at least twice as high as the said determined height, the said cells being arranged at several different heights in the body, the internal ducts in the body being arranged along a direction with a radial component.

2. Device according to claim 1, in which the cells, arranged side by side in the body and connected in series to each other by inlet and outlet ducts opening up at the ends opposite the said cells, are distributed in a helical spiral around the rotation axis of the body.

3. Device according to claim 1, in which the cells, arranged side by side in the said body and connected to each other in series by inlet and outlet ducts opening up at the ends opposite the said cells, are distributed by successive planes orthogonal to the rotation axis of the body.

4. Device according to claim 1, in which the cylindrical body comprises several open cavities on the side of the outer wall of the said body, each cavity opening up on one face of the body through an enlarged opening to insert an associated internal duct, first removable closing means covering the said opening and associated with a perforated partition to form a communication channel between the cavity and the associated internal duct.

5. Device according to claim 1, in which the cylindrical body comprises several open cavities on the inside and outside of the body, the cavities being closed by closing means comprising cylindrical parts in which communication channels are hollowed out to connect a cavity to an associated internal duct, the said closing means being assembled on each side of the cylindrical body by strapping.

6. Device according to claim 1, in which the cylindrical body comprises several open cavities on the side of the outer wall of the said body, each cavity comprising several housings to insert several cells with their associated internal ducts, first removable closing means covering the cells and the internal ducts in the same cavity.

7. Device according to claim 4, in which the said first closing means comprise a plug, a sealed partition forming a sealing element on the body, and at least one plug attachment element on the body, the plug coming into contact with the sealing element.

8. Device according to claim 4, in which the first closing means comprise a plug provided with a seal placed on a contact surface of the opening of the cavity, the plug comprising at least one recess to form a connecting channel between a cell and the associated internal duct.

9. Device according to claim 7, in which the plug is held directly or indirectly by a screwing element.

10. Device according to claim 4, in which the cavities also comprise an opening on the side of the inner wall of the cylindrical body, the cross section of the said opening being smaller than a median cross section of the cavity and communicating with a connecting channel between a cavity and an internal duct associated with the adjacent cavity, the said channel being formed by a recess in the second closing means.

11. Device according to claim 10, in which the second closing means are held in place on the inner wall by attachment means and are in contact with a seal.

12. Device according to claim 1, in which the single piece cylindrical body, comprising titanium and / or aluminium, has an outside diameter of between 20 cm and 2 m and comprises at least 50 housings of cells.

13. Device according to claim 1, in which the cylindrical body comprises an alternating series of cells and ducts arranged in a synthetic resin block formed by moulding.

14. Device according to claim 1, in which the said determined height is between 2 and 50 mm, the cells being identical to each other and having their largest dimension oriented along a radial direction.

15. Device according to claim 1, in which the thickness of the cylindrical body between its inner wall and outer wall is between 25 and 500 mm, the largest dimension of the cells being between 0.2 and 0.95 times the said thickness of the body and oriented along a radial direction.

16. Device according to claim 1, in which the body comprises an associated opening for each cell and a dispersion element for the cell lining.

17. Device according to claim 1, in which the cells comprise a titanium or stainless steel or fluorinated polymer internal surface, the internal volume of the cells being between 5 and 200 cm^3.

18. Device according to claim 1, in which an external metal pipe connects the cells to the internal ducts, the ends of the external pipe being fitted with Swagelock type connectors.

19. Use of the rotating device according to claim 1, characterised in that the said single piece cylindrical body is driven in rotation about its axis for a separation / purification operation to isolate one compound from a mix, one of the fluids possibly being brought into the supercritical state inside a circuit in the rotating device.